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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,072	10/21/2003	Shoya Tanaka	723-1442	2818

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EXAMINER	
HARPER, TRAMAR YONG	

ART UNIT	PAPER NUMBER
3714	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/689,072	TANAKA ET AL.	
	Examiner	Art Unit	
	Tramar Harper	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,8,9,11,13,15,18,20,22 and 24-26* is/are pending in the application.

4a) Of the above claim(s) *10,12,14,16,17,19,21 and 23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,8,9,11,13,15,18,20,22 and 24-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/01/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group 1, Claims 1, 4, 8-9, 11, 13, 15, 18, 20, 22, & 24-26 in the reply filed on 08/13/07 is acknowledged.

Response to Amendment

Examiner acknowledges receipt of amendment/arguments filed 05/01/07. The arguments set forth are addressed herein below. Claims 1, 4, 8-9, 11, 13, 15, 18, 20, 22, & 24-26 are pending, Claims 10, 12, 14, 16-17, 19, 21, & 23 are withdrawn from consideration as drawn towards a non-elected group, Claim 1 is amended, Claims 2-3 and 5-7 are canceled, and Claims 8-26 are newly added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 8-9, 11, 13, 15, 18, 20, 22, & 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagan et al (US 5,618,045) in view of Yasunari (JP 2001-168873).

Claims 1, 4, 8, 11, 13, 15, 18, 20, 22, & 24-25: Kagan discloses a wireless game system including at least two playing devices capable of communicating with each other via an ad-hoc, wireless, all-to-all broadcast network (Abstract). Each device comprises of a processor (includes memory) for controlling game play, which includes network

functionality (transmitter, receiver, etc.)(Col. 29-25). Each device further comprises a transmitter for transmitting transmission packets and a receiver for receiving said packets (Col. 3:54-64, Fig. 1). These packets includes identification data relative of the associated device (Col. 5:63-Col. 6:6). Each playing device can either function as the parent or child in the communication system (Col. 3:45-50). Kagan discloses that communication between each device can be accomplished by short-range radio communication, infrared communication, ultra-sonic communication, and the like, as known in the art (Col. 3:49-53). Kagan fails to disclose a means for restoring a connection within a parent/child system. Yasunari discloses a radio communications system that comprises of a parent/hub and child/leaf system, where a connection registration can be performed automatically (¶ 4), even if connection is altered due to reasons such as malfunction of radio link, etc (¶ 44). Yasunari discloses that a parent/hub device broadcasts a cycle start packet (CSP) periodically to the leaf devices. The CSP includes information regarding slots already assigned and slots available within the network (¶ 19-21). The child devices go through the following connection process or steps:

Step 1: The child device starts in Condition 0 and waits to receive a CSP packet from the hub device. Once the CSP packet is received the synchronization process is established and the child device changes to Condition 1 (synchronization condition).

Step 2: While in Condition 1, if a child does not receive a CSP packet for a fixed amount of time and/or synchronization is lost with the hub the child changes back to Condition 0 (initial or start point).

Step 3: The child device judges from the CSP packet whether the free time slots available within the network actually exist. When the child determines that the time slots do exist the child randomly chooses a time slot and sends a connection registration demand packet RRP using the chosen time slot. The child then changes from a Condition 1 to a Condition 2 (registration standby). The RRP further contains a serial number of the device it is associated with. While in Condition 2, the child stands by until a registration acknowledgement packet RAP from the hub is received (until the registration process is complete).

Step 4: If a RAP is received, the child device changes to Condition 4 (reg. complete) and begin sending a station synchronization packet SSP1 to the other devices within the network e.g. connection is established.

Step 5: If a register reject packet RNP is received from the hub device then the child device changes from Condition 2 to Condition 1 and step 3 will be done again. This occurs in cases where the free slot the child was trying to take or fill in was selected and established with other competing devices.

Step 6: In events where a child device determines that a free slot (based on CSP) does not exist it changes from Condition 1 to Condition 3 (No free slots). Furthermore, after a predetermined time changes from Condition 3 to Condition 1.

Step 7: After a predetermined amount of time while in Condition 2, if the child does not receive a CSP from the hub then the child changes to Condition 0 and stops sending the RRP packet.

Step 8: After a predetermined amount of time while in Condition 2, if the child does not receive a RAP from the hub then the child changes to Condition 5 () and stops sending the RRP packet. Furthermore, after a predetermined amount of time the child changes from Condition 5 to Condition 1.

Step 9: While in Condition 4 (connection registration complete state), if the slot that the child was assigned from the CSP is in a unstable condition the child changes from Condition 4 to Condition 5 (no connection registration suspending) and the device stops sending the SSP.

Step 10: While in Condition 4 and after a predetermined amount of time, if the child device does not receive the CSP from the hub/host device then the child changes from Condition 4 to Condition 0, stops sending out the SSP, the synchronization process is done over or redone.

Step 11: While in Condition 5 and after a predetermined amount of time, if the child does not receive the CSP from the hub then SSP is stopped.

In regards to at least steps 9-10, Yasunari discloses that the child/leaf device, which was already in a connection registration condition (connect state (Condition 4)), judges whether or not the assigned slot (indicated by CSP) is not in a stable condition and if it isn't the transmitted synchronous packet is **stopped or connection suspended**. Then the child/leaf device automatically starts the synchronization process over (Fig. 3, ¶ 34-35). If the leaf device determines that it cannot detect the CSP while in a registration condition, the process is started over to regain synchronization (Fig. 3, ¶ 34-35). Yasunari discloses that the parent/hub broadcasts the connection to child

after registration is complete (¶ 29, 41). Yasunari discloses that if the parent device does not receive a synchronous packet from a connected child device within a predetermined time while in a registered condition then connection is lost (¶ 46) and the parent changes into condition 13. While in the same predetermined time if a registration demand packet is not received from said child then assigned slot is deleted or reassigned (¶ 48). Furthermore, if the CSP cannot be received while in a registered condition with a predetermined time the child stops transmitting the synchronous packet, changes back to an initial condition, and reinitiates the synchronization process (¶ 35). Also, Yasunari discloses that the parent judges if a child trying to reconnect (sending reg. demand packet) is a child in which registration has already been carried and if the condition is satisfied and the ID of the child is accurate then connection or registration is re-established (¶ 39). As such, the second predetermined time of the child to judge a connection lost has to be of lesser time than the time prior till the parent deleting or reassigning the available time slot. Yasunari discloses that such an automated connection system provides a stable communication system making plug and play possible (¶ 4, 50). It would have been obvious to one of ordinary skill at the time of the invention to modify the wireless gaming system of Kagan with the automated wireless connection system of Yasunari for purposes of providing a more stable connection within the gaming environment amongst gaming devices. Such a modification would provide stability and ensure a more real time gaming environment.

Claims 9 & 26: Yasunari discloses that connection permitting data or CSP contains identifying time slots, where the parent is the first time slot and the child devices are the corresponding time slots (¶ 19, Fig. 2).

Response to Arguments

Applicant's arguments filed 05/01/07 have been fully considered but they are not persuasive. For purposes of clarification to the hub/child connection process the Examiner has amended the above. Applicant fails to disclose in detail why the combination fails to teach the added limitation and/or overall invention. Applicant contends that Yasunari fails to disclose the reconnect feature of the claimed invention. More specifically Applicant states, "Yasunari merely discloses the hub device receiving a register request packet from a registered leaf device due to a radio link failure while in a registered state." Examiner respectfully disagrees, for the above reasons. The combination of Kagan and Yasunari clearly shows a process where in a connection is lost the child can reconnect. A clear reading into the steps or process of the child (¶ 27-36) and the steps or process of the hub (¶ 37-49) teaches the limitations of the claimed invention in its entirety (Figs. 3-4). The registration process is a means to establishing a connection from a child to a hub in the network. If the connection registration state is lost then the connection to the network is lost and must be re-established as taught by Yasunari. Therefore, the rejection is maintained for at least the above noted reasons.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maeshima (US 6,798,760) teaches a similarly structured wireless system.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tramar Harper whose telephone number is (571) 272-6177. The examiner can normally be reached on 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert Pezzuto
Supervisory Patent Examiner
Art Unit 3714

TH

10/29/07